



Trivandium oxide hydrate compositions

Description of Technology: Disclosed is a new vanadium oxide hydrate composition suitable for use as electrode-active material in primary and secondary lithium and lithium ion batteries and a process for its preparation.

Patent Listing:

1. **US Patent No. 6838023**, Issued January 4, 2005, "Trivanadium oxide hydrate compositions"
<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HTO&f=1&u=%2Fnetacgi%2FPTO%2Fsearch-bool.html&tr=1&f=G&l=50&co1=AND&d=TEXT&s1=6,838,023.PN.&OS=PN/6,838,023&RS=PN/6,838,023>

Market Potential: The present invention is directed to a composition and process for forming a composition represented by the formula $M_{1-x}V_3O_{8-y}F_z.nH_2O$, wherein $M = NH_4^+$ or K^+ , $0 \leq x < 0.5$, $0 < y < 0.5$, $0 < z < 0.5$, and $0 \leq n < 2$, which is highly suitable for use as an electrode-active material in batteries, particularly lithium and lithium ion primary and secondary batteries, and to the compositions, electrodes, and electrochemical cells formed therewith. One of skill in the art will understand that the composition of the invention may be variously represented by compositional ratios which are equal multiples of some common factor. All such compositions are encompassed in the present invention. For the purpose of the present invention, the composition of the invention will always be referred to as $M_{1-x}V_3O_{8-y}F_z.nH_2O$.

Benefits:

- New vanadium oxide hydrate composition

Applications:

- Batteries
- Electrochemical cells

Contact:

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